Epistemology

Epistemology is the branch of philosophy concerned with the theory of knowledge. It is the study of the nature of knowledge, justification, and the rationality of belief.

There is so much disagreement over what are, *exactly*, the different types of knowledge that an agreed-upon "master list" simply does not exist. This is because knowledge is purely philosophical; debates span centuries, arguments supersede fact, and everyone has a different opinion about what is or is not knowledge.

Knowledge

Knowledge is a familiarity, awareness, or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning.

Types of Knowledge

1. *A Priori*

A priori and *a posteriori* are two of the original terms in epistemology (the study of knowledge). *A priori* literally means "from before" or "from earlier." This is because *a priori* knowledge depends upon what a person can derive from the world without needing to experience it. This is better known as *reasoning*. Of course, a degree of experience is necessary upon which *a priori* knowledge can take shape.

For example, if you are in a closed room with no windows and someone asked you what the weather was like, you would not be able to answer them with any degree of truth. If you did, then you certainly would *not* be in possession of *a priori* knowledge. It would simply be impossible to use reasoning to produce a knowledgeable answer.

On the other hand, if there were a chalkboard in the room and someone wrote the equation **4 + 6 =?** on the board, then you could find the answer without physically finding four objects and adding six more objects to them, and then counting them. You would know the answer is 10 without needing real-world experience to understand it. In fact, mathematical equations are one of the most popular examples of *a priori* knowledge.

2. *A Posteriori*

Naturally, *a posteriori* literally means "from what comes later" or "from what comes after." This is a reference to experience and using a different kind of reasoning (inductive) to gain knowledge. This kind of knowledge is gained by first having an experience (and the important idea in philosophy is that it is acquired through the five senses) and then using logic and reflection to derive understanding from it. In philosophy, this term is sometimes used interchangeably with empirical knowledge, which is knowledge based on observation.

It is believed that *a priori* knowledge is more reliable than *a posteriori* knowledge. This might seem counter-intuitive since in the former case someone can just sit inside of a room and base their knowledge on factual evidence while in the latter case someone is having real experiences in the world. But the problem lies in this very fact: everyone's experiences are subjective and open to interpretation.

3. Explicit Knowledge

Now we are entering the realm of explicit and tacit knowledge. As you have noticed by now, types of knowledge tend to come in pairs and are often antitheses of each other. Explicit knowledge is like *a priori* knowledge in that it is more formal or perhaps more reliable. Explicit knowledge is the knowledge that is recorded and communicated through mediums. It is our libraries and databases. The specificity of what is contained is less important than how it is contained. Anything from the sciences to the arts can have elements that can be expressed in explicit knowledge.

The defining feature of explicit knowledge is that it can be easily and quickly transmitted from one individual to another(s). It also tends to be organized systematically. For example, a history textbook on the founding of America would take a chronological approach as this would allow knowledge to build upon itself through a progressive system, in this case, time.

4. Tacit Knowledge

Tacit knowledge is a relatively new theory introduced only as recently as the 1950s. Whereas explicit knowledge is very easy to communicate and transfer from one individual to another, tacit knowledge is precisely the opposite. It is extremely difficult, if not impossible, to communicate tacit knowledge through any medium.

For example, the textbook on the founding of America can teach facts (or things we believe to be facts), but someone who is an expert musician cannot truly communicate their knowledge; in other words, they cannot tell someone how to play the instrument and the person will immediately possess that knowledge. That knowledge must be acquired to a degree that goes far, far beyond theory. In this sense, tacit knowledge would most closely resemble *posterior* knowledge, as it can only be achieved through experience.

The biggest difficulty of tacit knowledge is knowing when it is useful and figuring out *how* to make it usable. Tacit knowledge can only be communicated through consistent and extensive relationships or contact (such as taking lessons from a professional musician). But even in this case, there will not be a true transfer of knowledge. Usually, two forms of knowledge are born, as each person must fill in certain blanks (such as skill, shortcuts, rhythms, etc.).

5. Propositional Knowledge (also Descriptive or Declarative Knowledge)

Our last pair of knowledge theories are propositional and non-propositional knowledge, both of which share similarities with some of the other theories already discussed. Propositional knowledge has the oddest definition yet, as it is commonly held that it is the knowledge that can literally be expressed in propositions; that is, in declarative sentences (to use its other name) or indicative propositions.

Propositional knowledge is not so different from *a priori* and explicit knowledge. The key attribute is knowing that something is true. Again, mathematical equations could be an example of propositional knowledge because it is knowledge *of* something, as opposed to knowledge of *how* to do something.

The best example is one that contrasts propositional knowledge with our next form of knowledge, non-propositional or procedural knowledge. Let's use a textbook/manual/instructional pamphlet that has information on how to program a computer as our example. Propositional knowledge is simply knowing something or having knowledge *of* something. So, if you read and/or memorized the textbook or manual, then you would know the steps on how to program a computer. You could even repeat these steps to someone else in the form of declarative sentences or indicative propositions. However, you may have memorized every word yet have no idea how to program a computer. That is where non-propositional or procedural knowledge comes in.

6. Non-Propositional Knowledge (also Procedural Knowledge)

Non-propositional knowledge, which is better known as procedural knowledge. It is knowledge that can be *used*; it can be applied to something, such as a problem. Procedural knowledge differs from propositional knowledge in that it is acquired "by doing"; propositional knowledge is acquired by more conservative forms of learning.

One of the defining characteristics of procedural knowledge is that it can be claimed in a court of law. In other words, companies that develop their own procedures or methods can protect them as intellectual property. They can then, of course, be sold, protected, leased, etc.

Procedural knowledge has many advantages. Obviously, hands-on experience is extremely valuable; literally so, as it can be used to obtain employment. We are seeing this today as experience (procedural) is eclipsing education (propositional). Sure, education is great, but experience is what defines what a person is capable of accomplishing. So, someone who "knows" how to write code is not nearly as valuable as someone who "writes" or "has written" code. However, some people believe that this is a double-edged sword, as the degree of experience required to become proficient limits us to a relatively narrow field of variety.

But nobody can deny the intrinsic and real value of experience. This is often more accurate than propositional knowledge because it is more akin to the scientific method; hypotheses are tested, observation is used, and progress results.

Types of Propositional Knowledge

Although philosophers may differ on how many different types of knowledge there are they agree that with **Propositional Knowledge** we claim to have knowledge of different things. What they may have in common that makes their knowledge then becomes the issue.

Here is one schema for different types of **Propositional Knowledge**.

- **LOGICAL**
- **SEMANTIC**
- **SYSTEMIC**
- **EMPIRICAL**

Consider that you probably would claim to know the following things.

Examples:

1. There are three sides to a triangle. The sum of their angles is 180 degrees.
2. There is a computer in front of you right now.
3. 23 + 11= 34
4. A bachelor is an unmarried male.
5. If a is more than b, and b is more than c, then a is more than c.

These sentences all make claims that can be determined to be either true or false. They are sentencing that express proposition. They are claims about which you can come to a judgment as to whether they are true. You probably know that they are true. Now how is it that you come to know these things? Obviously, you come by this knowledge in different ways. This relates to the idea of the different types of knowledge.

LOGICAL

There is the knowledge that is the result of the understanding of the relationship of ideas to one another. There are the rules or laws of logic that permit claims to knowledge that are further statements of ideas consistent with the rules and the ideas already accepted.

Here is another example where you do not need to know what I am talking about because you know the relationships involved.

A. All gazintz are gazatz
B. All gazatz are garingers
C. Therfore, all gazintz are garingers.

You can claim to know that: If A and B are true, then C is true as well. This you know by LOGIC.

SEMANTIC

There is the knowledge that is the result of learning the meaning of words. Knowledge of words is knowledge of definitions. Such definitions are set in dictionaries. So, bachelors are unmarried males. You know this. People acknowledge this. You can look it up.

(Are newborn baby boys Bachelors???????? Do people say to the new mother in the hospital nursery: "Oh what a beautiful bachelor you have there Ms Samina!”?)

SYSTEMIC

There is knowledge of Mathematics and Geometry, which is the result of learning a system of words, or symbols and how they relate to one another and the rules of operating in that system and then any claims made that are consistent with those definitions and rules is called knowledge.

EMPIRICAL

There is a knowledge that comes through our senses. This knowledge is empirical knowledge. Science is the best example of a method for ascertaining the accuracy of such knowledge. Scientific knowledge is a result of the practice of the method: Observation, abduction of a hypothesis, careful observation, refinement of hypothesis, deduction of test for the hypothesis, testing and experimentation, confirmation, or falsification of the hypothesis.

What do these four types of knowledge have in common? One of the most popular theories of knowledge of the twentieth century holds that KNOWLEDGE does imply a **Belief.**

Belief does not Imply Knowledge. Wherever people claim to know that something is true they believe that it is so. When people claim to believe that something is, so they don't always claim to know that it is so.